

**WHATCOM COUNTY
EXECUTIVE'S OFFICE**
County Courthouse
311 Grand Ave. Suite #108
Bellingham, WA 98225



Jack Louws
County Executive

April 16, 2012

Tammy Conforti
US Army Corps of Engineers
CECW-CE
441 G Street NW
Washington, DC 20314-1000

Re: Docket Number COE-2010-0007
Process for Requesting a Variance for Vegetation Standards for Levees and Floodwalls

Dear Ms. Conforti:

Whatcom County and the Whatcom County Flood Control Zone District continue to strongly oppose the revised process contained in the recent additional filings for the process to request a variance from vegetation standards for levees in the USACE PL 84-99 program. Attached are the comments we submitted two years ago in response to the first draft of the Policy Guidance Letter (PGL). These comments are being resubmitted at this time because none of our concerns have been addressed in the current draft. In addition, I provide the following supplemental comments:

1. Submittal requirements contained in the current draft PGL are even more onerous to local governments than the previous version (see comment #4 in attached letter). While the current draft of the PGL provides more guidance as to what should be included in an engineering analysis, the guidance is predicated on the assumption that there are only adverse impacts associated with vegetation and ignores the possibility that vegetation may provide benefits to levee integrity. The PGL should acknowledge that vegetation may be desirable on some levees.
2. We understand that considerable effort has been expended by several agencies including the USACE in trying to develop a regional framework for a basin in King County that could be adapted and used in support of a specific variance request. The draft PGL does not acknowledge this process at all and does not appear to provide any mechanism to integrate the results of this work. The PGL should include a way to integrate the results of this effort.
3. The Engineer Research and Development Center report issued in July of 2011 was very limited in scope, focusing on slope stability and seepage issues. The report states the selection of these focus areas "does not diminish the need for future research on other topics related to the effects of woody vegetation on levees. Rather, this study should be viewed as an initial research effort into a very complex issue." We understand that ERDC is in the process of scoping additional studies to address different aspects of this very complex issue. A shift of policy of this magnitude should be based on sound science and the investigations to develop that science are just beginning. The ERDC

study, while very limited in scope, did conclude that in some instances levee vegetation can improve the factor of safety for a levee's performance. Requiring sponsors to remove vegetation before the science can support shifting policy in this direction could weaken levee integrity rather than improve it.

In addition to these comments we provide the following suggestions with the hope they can be incorporated into a new policy that will replace the current draft PGL:

1. Reconsider abandoning regional variances, as they likely provide the most cost-effective and reasonable means to account for the different types of systems that occur across the Country.
2. Consider what the levee is protecting and whether additional uncertainty associated with vegetation may be acceptable for a levee that protects agricultural lands compared to one that protects more intensely developed areas.
3. Consider the intricacies of the levee system and how it is intended to operate. Agricultural levees designed to overtop in the non-growing season can benefit greatly from vegetation on the riverward face of the levee.
4. Allow sponsors to provide alternate means for levee inspections. Boat inspection provides an efficient means to see under the vegetation and inspect problem areas thoroughly.

Thank you for your consideration.

Sincerely,



Jack Louws
County Executive



Kathy Kershner
Chair, County Council

Cc: Senator Patty Murray
Senator Maria Cantwell
US Representative Rick Larsen
Whatcom County Flood Control Zone District Board of Supervisors

**WHATCOM COUNTY
EXECUTIVE'S OFFICE**

County Courthouse
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Bellingham, WA 98225-4082



Pete Kremen
County Executive

March 1, 2010

Douglas J. Wade
U.S. Army Corps of Engineers
CECW-CE
441 G Street NW
Washington, DC 20314-1000

RE: Docket Number COE-2010-0007
Process for Requesting a Variance from Vegetation Standards for Levees and
Floodwalls

Dear Mr. Wade:

Whatcom County and the Whatcom County Flood Control Zone District **strongly oppose** proposed changes in the process to request a variance from vegetation standards for levees in the USACE PL84-99 program. Our reasons are enumerated below:

1. The Federal Register notice states that the proposed changes align with the Levee Safety Program goals that make public safety a top priority and assures application of a consistent standard. **The application of single vegetation standard to all PL84-99 eligible levees in the nation may simplify program administration, but it is not consistent with the USACE's public safety priority.** The proposed changes are likely to reduce protection afforded by levees on some Pacific Northwest rivers. Woody vegetation on the riverward side of these levees provides protection from hazards associated with channel migration and large woody debris (LWD) transported during flood events. These hazards are much more prevalent than hazards associated with falling trees or piping failures for the Nooksack River system in Whatcom County. The national vegetation policy appears to be narrowly focused on these failure mechanisms, which rarely result in levee failures on the Nooksack River.
2. For the Nooksack River levee system, **compliance with a uniform national vegetation policy without options for a regional variance would lead to more levee failures and increased need for Corps assistance in rehabilitation projects.** The primary land use in the Nooksack River floodplain is agriculture and the levee system is designed to (1) provide protection during the growing season and (2) overtop during large flood events. Flood events transport large amounts of LWD from upstream mountainous areas to leveed agricultural and rural areas in the lower river floodplain. When the levees overtop, LWD is transported with the water leaving the river. Shrubs and trees on or adjacent to the riverward face of the levee filter out the LWD, reducing the potential for it to be deposited on the levee crest or backslope.

One of the primary failure mechanisms for Nooksack River levees results from scour around LWD deposited on the levee during a flood, eventually leading to headcutting through the entire levee prism. Removal of the vegetation on the riverward face of our levees would increase the risk of this type of failure throughout the system. In addition, vegetation can strengthen levees due to the binding effect the roots of plants have on embankment materials and can provide roughness along the front face of the levee, thereby lowering velocities and the potential for erosion.

3. **Vegetation to meet the national vegetation standards is an action that is "likely to adversely affect" listed species** under the Endangered Species Act (ESA). This makes it difficult, at best, for Whatcom County to bring the levees currently active in the PL 84-99 Program up to the national standard, without being out of compliance with the ESA.
4. The proposed changes to the process to request a variance would result in new submittal requirements that are onerous for smaller communities with rural and agricultural floodplains. **Whatcom County currently has over 31 miles eligible in the PL84-99 Program, most of which would require a variance from the national vegetation standards to remain eligible** without the Seattle District's regional variance. The submittal requirements for variance requests for our currently eligible levees would require significant resources to prepare and are not necessary for understanding the benefits of allowing a variance in our situation.
5. Loss of eligibility in the program would be an economic hardship to the citizens of Whatcom County. **This proposed change in policy penalizes communities that have managed their floodplains appropriately** by allowing low-intensity agricultural land uses instead of more intensive development. Agriculture is a major industry in Whatcom County's economy and would be significantly impacted if our levees become no longer eligible in the PL 84-99 Program.
6. All changes in policy should be based on sound science. **This proposal is likely to profoundly alter Corps involvement on the Nooksack River and similar Pacific Northwest rivers; therefore, the Corps' application of sound science is expected to be commensurately rigorous.** The Corps committed to conducting scientific research on the effects of woody vegetation on levee integrity at the Corps-sponsored symposium, "An Examination of Levee Vegetation Policy," held in February 2009 in Renton. My staff participated in this symposium and spoke directly with the scientists who were leading the study, offering to show them the Nooksack levee system and help them understand our perspective of the role of vegetation in levee safety. We understand that limited field investigations were performed in Skagit County but the approach did not address the appropriate failure mechanisms for this region of the Country. Just like the national vegetation standards, it focused on the failure mechanisms associated with woody vegetation that are not prevalent on the Nooksack system and did not recognize the benefits vegetation provides to protecting the integrity of the levee from the hazards common in the Northwest. At

that symposium, the Corps stated that the Seattle District's regional variance would remain in place until such research currently underway at the Corps' Engineering Research and Development Center was completed.

The proposed changes to the process used to request a variance from levee vegetation standards leave communities like Whatcom County in a position with no acceptable alternatives. We are forced to choose between the following options:

- Remove the vegetation from the riverward side of our levees, increasing the potential for future levee failures, future PL 84-99 assistance requests, and lawsuits under the ESA.
- Maintain existing vegetation on the riverward side of our levees with the result that over 30 miles of levee will no longer be eligible for repair through the PL 84-99.
- Stop all of our ongoing flood programs and projects to divert our limited resources to assembling the information required for variance requests with the understanding that there is no guarantee we will be granted variances for any of our levees.

We do not agree that the proposed policy changes will result in "no significant impact" to either the natural or the human environment and believe at a minimum, an Environmental Impact Statement should be prepared to identify and address these impacts.

Sincerely,



Pete Kremen
County Executive

cc: Senator Patty Murray
Senator Maria Cantwell
US Representative Rick Larsen
Whatcom County Flood Control Zone District Board of Supervisors